Belzona Seals Leaking SF6 Flange

ID: 9521

Industry: Power Customer Location: London Application: VPF-Valves, Pipes and Fittings Application Date: May 2024

Substrate: Aluminum

Products: Belzona 1981 (SuperWrap II), Belzona SuperWrap, Belzona 7311, Belzona 9111 (Cleaner Degreaser), Monti® MBX®

Bristle Blaster®

Problem

The customer was suffering from the loss of SF6 gas from a horizontal pipe joint within a substation building. A solution was required to stop the loss of the gas to maintain a safe working system and save the custom from environmental fines. Previous successful repairs of different orientated pipework for the custom had been carried out nationwide, so the customer asked for the same solution to be applied to this leak.



SF6 leaking from multiple location around pipe joint. Client covered joint with tape to stem leak.



utilising bristle blaster and breather membrane installed.



Repair area substrate prepared Belzona 7311 applied to repair area incorporating Belzona 9341.



SF6-FIX leak sealing repair completed, with vent pipe left open at 6 o'clock position until 5x layers of Belzona 9371 using full cure is achieved. Vent pipe Belzona 1981 resin for wetting. is capped off following full cure.

Application Situation

Belzona's UK Distributor has carried out multiple repairs for the client who were very pleased with the results. As the repairs can be completed without disturbance to the power distribution process and save them further refilling costs the same solution was requested.

For more examples of Belzona Know - How In Action, please visit https://khia.belzona.com

ISO 9001:2015 Belzona products are FS 695214 manufactured under an ISO ISO 14001:2015 9000 Registered Quality EMS 695213 Management System.

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Application Method

The application area was prepared using MBX (Bristle Blaster). Stainless steel wheels were used as the substrate was aluminium. Substrate was degreased using Belzona 9111 to remove any contaminants.

Breather pipe and 3D printed base plate were installed at 6 o'clock position as SF6 is heavier than air.

Breather membrane was installed tightly to the profile of the flange due to restricted access from near-by components. Breather pipe was allowed to protrude though membrane.

A combination of Belzona 7311 and 9341 along with Belzona 1981 and Belzona 9371 were used to encapsulate the full circumference of the flange.

The breather pipe was left to vent until all materials used in the repair had achieved full cure. The vent pipe was then capped off and the system repressurised.

Belzona Facts

Belzona has been used to successfully repair multiple asset leaks for National grid making them cost savings by reducing their SF6 consumption, along with any associated environmental fines.

Numerous competitor repairs have been removed in favour of a Belzona solution due to failure and SF6 release.